

# RECEIVE BAND REJECTION FOR A DIGITAL RF AMPLIFIER

## ABSTRACT OF THE DISCLOSURE

A bandpass amplifier for use in a communication system is described. The amplifier includes a frequency selective network having a feedback path. The frequency selective  
5 network has first filtering circuitry for selectively passing the transmit band, and second filtering circuitry for selectively passing the receive band. The first filtering circuitry and the second filtering circuitry pass frequencies in the transmit band and reject frequencies in the receive band. A sampling analog-to-digital converter is coupled to the frequency selective  
10 network. A switching device is coupled to the sampling analog-to-digital converter for producing a continuous-time output signal. A feedback path is provided for continuously sensing and feeding back the continuous-time output signal to the frequency selective network.